

Amendments to the Claims

Claims Pending:

- At time of the Action: Claims 1-42
- Amended Claims: Claims 1, 2-4, 6, 7-12, 14-16, 17-23, 24, 29, and 37-40
- After this Response: Claims 1-42

1. (Currently Amended) ~~An apparatus~~ A system for generating configuration instructions to build a programmable machine, comprising:

a memory;

a processor coupled to the memory;

a build management logic configured to automate building by interacting with a library that is in a standardized and a generic form, wherein the generic form allows common building blocks to represent many different configuration options;

the library comprising:

a plurality of objects representing aspects of a configuration process for a specific collection of programmable machines; and

a plurality of parameters associated with respective objects, wherein at least one of the parameters includes an unspecified value for the generic form;

and

the plurality of objects having attributes of an internal identification assigned to an object, a name assigned to the object, a description of the object, a version number of the object, an individual authorized to perform action on the object, an ID assigned to an owner of the object, and a parent of the object;

the build management logic configured to specify a set of objects from the library to implement the configuration of the programmable machine, and to generate the configuration instructions from the set of objects;

the build management logic interacts with a database, wherein the database includes packages which are collections of objects in the database assembled to be transferred from a site to another site;

the build management logic interacts with a template storage providing templates, wherein the templates provide a skeleton representation of a machine or a group of machines and the templates may be exported and transferred to other sites to generate configuration instructions at the other sites;

wherein the build management logic is further configured to determine an unspecified value when generating configuration instructions for the specific combination of programmable machines; ~~and~~

the unspecified value is resolved by the build management logic looking to a next higher node in a site tree to determine whether that node can resolve the unspecified value;

the build management logic is further configured to provide a user interface to manage data assignment for the specific collection of programmable machines, wherein the user interface accepts input and returns output [[.]] ; and

an automatic purposing logic configured to provide functionality for manipulating a collection of scripts and associated parameters that are assembled to create the configuration instructions.

2. (Currently Amended) The ~~apparatus~~ system according to claim 1, wherein the set of objects from the library have a hierarchical order, and wherein the at least one parameter that includes the unspecified value is associated with an object located at a defined level within the hierarchal order.

3. (Currently Amended) The ~~apparatus~~ system according to claim 2, wherein the build management logic is configured to determine the unspecified value by determining the value from an object that is higher in the hierarchical order than the defined level.

4. (Currently Amended) The ~~apparatus~~ system according to claim 1, wherein the at least one parameter that includes the unspecified value comprises an expression that identifies a location to determine the value, and wherein the build management logic is configured to specify the value by accessing the location specified in the expression.

5. (Previously Presented) A computer readable storage medium executed on a computing device having data structures and machine readable instructions for implementing the library and the build management logic of claim 1.

6. (Proposed Claim Amendment) ~~An apparatus~~ A system for generating configuration instructions used to build a programmable machine, comprising:

a memory;

a processor coupled to the memory;

a build management logic configured to automate building by interacting with a library, wherein building blocks in the library form a hierarchical organization of objects that are representative of machines to be configured at a site;

the hierarchical organization of objects represents a relationship between different features of the machines, wherein a topmost object represents an aggregate of machines to be configured at the site;

the hierarchical organization of objects provides root objects for a root site, a collection of vendors, a collection of top level operating systems, and a collection of top level machine functions;

the library having building blocks to provide configuration instructions for a specific collection of machines, grouping the building blocks into different categories, objects pertaining to different available vendors, the objects pertaining to different operating systems, the objects pertaining to different machine functions, and the objects related to stages and phases involved in configuring machines;

the library having generic objects representing aspects of a configuration process, wherein the generic form allows common building blocks to represent many different configuration options;

a template providing a framework representing the programmable machine in combination with information in the library to reconstruct a description of the programmable machine;

the template providing a standardized framework for passing information from one machine to another; and

the template providing a pointer to a phase list so a receiving site can reconstitute phases based on a local library at the site;

the build management logic configured to generate the configuration instructions used to build the programmable machine by organizing the generic objects in the library based on ~~a~~ the framework established by the template; the build management logic configured to cull a subset of information from a database and organize information into a package to transfer from the site to another site;

the database stores a collection of objects that allow a user to manage parameter information;

the build management logic is further configured to provide a user interface displaying predetermined templates to accept input in response to the predetermined templates.

7. (Currently Amended) The ~~apparatus~~ system according to claim 6, wherein the template is expressed in a markup language and has a form defined by a schema.

8. (Currently Amended) The ~~apparatus~~ system according to claim 6, wherein the build management logic is configured to transfer the template to another user, or receive the template from the other user.

9. (Currently Amended) The ~~apparatus~~ system according to claim 6, wherein the build management logic is configured to transfer the template to a head-end site, or receive the template from the head-end site.

10 (Currently Amended) The ~~apparatus~~ system according to claim 6, wherein the build management logic is configured to encapsulate information obtained from the library and the template in a package, and to transfer the package to another site.

11. (Currently Amended) The ~~apparatus~~ system according to claim 6, wherein the build management logic is configured to generate a plurality of sets of configuration instructions to build a respective plurality of programmable machines.

12. (Currently Amended) ~~An apparatus~~ The system according to claim 11, wherein the build management logic is configured to generate a synchronization file that specifies a manner in which the configuration of each machine in the plurality of programmable machines impacts other machines within the plurality of programmable machines.

13. (Previously Presented) A computer readable storage medium executed on a computing device having data structures and machine readable instructions for implementing the library and build management logic of claim 6.

14. (Proposed Claim Amendment) A system for generating configuration instructions to build a programmable machine, comprising:

a head-end site, including:

head-end logic configured to interact with a remote client site;

a central database coupled to the head-end logic, the central database containing at least one package that specifies configuration instructions, at least one package including:

- a plurality of objects representing aspects of a configuration process;
- a plurality of parameters associated with respective objects; and
- at least one template for organizing the plurality of objects in accordance

with a predetermined framework;

the at least one template providing a standardized framework for passing information from one machine to another;

the at least one template providing a pointer to a phase list so a receiving site can reconstitute phases based on a local library at the site;

a configuration site, including:

a local database for storing configuration instructions used to configure at least one machine associated with the configuration site; logic configured to receive and store the at least one package in the local database;

the local database stores a collection of objects that allow a user to manage parameter information;

the local database granting rights to access, modify and transfer any information stored in the local database to different respective user groups; and

logic configured to generate configuration instructions used to configure at least one programmable machine based on the at least one package;

the head-end site provides web pages to assist in retrieving a resource;

wherein a group of interrelated machines may be built by downloading one or more packages from one site to another site;

wherein the configuration of the machines may be changed by loading another package to generate new configuration instructions for dissemination to the machines.

15. (Currently Amended) A computer readable storage medium having stored computer-executable instructions on a computing device, comprising:

a library having generic objects representing aspects of a configuration process; the library having building blocks to provide configuration instructions for a specific collection of machines, wherein the building blocks are grouped into different categories, objects pertaining to different available vendors, objects pertaining to different operating systems, objects pertaining to different machine functions, objects related to stages and phases involved in configuring machines;

a template defining specific information used to build a programmable machine, wherein the specific information provided by the template includes a reference to at least one generic object in the library;

a template providing a framework representing the programmable machine in combination with information in the library to reconstruct a description of the programmable machine[.];

the template providing a standardized framework for passing information from one machine to another; and

the template providing a pointer to a phase list so a receiving site can reconstitute phases based on the library at a site.

16. (Currently Amended) ~~An apparatus~~ A system for generating configuration instructions used to build a programmable machine, comprising:

a memory;

a processor coupled to the memory;

a build management logic configured to automate building by interacting with a library, wherein the library includes building blocks to provide configuration instructions for a specific collection of machines, grouping the building blocks into different categories, such as objects pertaining to different available vendors, the objects pertaining to different operating systems, the objects pertaining to different machine functions, and the objects related to stages and phases involved in configuring machines;

the library having:

a plurality of generic objects representing aspects of a configuration process for the programmable machine; and

a plurality of parameters associated with respective generic objects;

a template providing a framework in combination with the library to reconstruct a description of the programmable machine;

the template providing a standardized framework for passing information from one machine to another machine; and

the template providing a pointer to a phase list so a receiving site can reconstitute phases based on the library at the site;

build management logic configured to specify a set of objects from the library to implement the configuration of the programmable machine, and configured to generate the configuration instructions from the set of objects; and

a user interface configured to allow a user to interact with the build management logic;

wherein the user interface displays predetermined templates to accept input in response to the predetermined templates.

17. (Currently Amended) The ~~apparatus~~ system according to claim 16, wherein the user interface further includes a tree display section configured to display objects organized as a hierarchical tree.

18. (Currently Amended) The ~~apparatus~~ system according to claim 17, wherein the user interface further includes a parameter display section configured to display information pertaining to parameters that are associated with at least one of the objects in the tree display section.

19. (Currently Amended) The ~~apparatus~~ system according to claim 18, wherein the user interface further includes a properties display section configured to display properties of at least one of the objects in the tree display section or at least one parameter in the parameter display section.

20. (Currently Amended) The ~~apparatus~~ system according to claim 16, wherein the build management logic includes logic configured to display ownership information associated with at least one object, wherein the ownership information determines a user's ability to perform actions on the at least one object.

21. (Currently Amended) The ~~apparatus~~ system according to claim 16, wherein the build management logic includes logic configured to display version information associated with information stored in the library.

22. (Currently Amended) The ~~apparatus~~ system according claim 16, wherein the build management logic further includes logic configured to restrict a user's right to manipulate information stored in the library based on the user's membership in one of a plurality of groups.

23. (Currently Amended) The ~~apparatus~~ system according to claim 16, wherein the build management logic includes logic configured to apply validation rules to the entry of parameter information to determine whether the entered parameter information meets predetermined criteria.

24. (Currently Amended) A method for generating configuration instructions used to build a programmable machine, comprising:

a build management logic configured to automate building by interacting with a library;

the library having:

a plurality of objects representing aspects of a configuration process for a specific collection of programmable machines;

the plurality of objects having attributes of an internal identification assigned to an object, a name assigned to the object, a description of the object, a version number of the object, an individual authorized to perform action on the object, an ID assigned to an owner of the object, and a parent of the object; and

a plurality of parameters associated with respective objects, wherein at least one of the parameters includes an unspecified value; **and**

the unspecified value is resolved by the build management logic looking to a next higher node in a site tree to determine whether that node can resolve the unspecified value;

specifying a set of objects from the library to implement the configuration of the programmable machine; and

generating the configuration instructions from the set of objects, including determining the value of the unspecified value;

providing packages which are collections of objects in a database assembled to be transferred from a site to another site;

providing a template[[s]] to provide a skeleton representation of a machine or a group of machines and the template [[s]] may be exported and transferred to other sites to generate configuration instructions at the other sites;

filling out the template that governs an organization and a nature of the group of machines;

filling out a template that governs a makeup of individual machines in the group of machines;

wherein generating configuration instructions for the specific combination of programmable machines; and

the build management logic is further configured to provide a user interface to manage data assignment for the specific collection of programmable machines, wherein the user interface accepts input and returns output.

25. (Original) The method according to claim 24, wherein the set of objects from the library have a hierarchical order, and wherein the at least one parameter that includes the unspecified value is associated with an object located at a defined level within the hierarchal order.

26. (Original) The method according to claim 25, wherein the determining of the value comprises determining the value from an object that is higher in the hierarchical order than the defined level.

27. (Original) The method according to claim 24, wherein the at least one parameter that includes the unspecified value comprises an expression that identifies a location to determine the value, and wherein the determining of the value comprises accessing the location specified in the expression.

28. (Previously Presented) A computer readable storage medium executed on a computing device having data structures and machine readable instructions for implementing the method of claim 24.

29. (Currently Amended) A method for generating configuration instructions used to build a programmable machine, comprising:

providing a library having generic objects representing aspects of a configuration process for a specific collection of programmable machines;

building blocks in the library form a hierarchical organization of objects that are representative of machines to be configured at a site;

the hierarchical organization of objects represents a relationship between different features of the machines, wherein a topmost object represents an aggregate of machines to be configured at the site;

the hierarchical organization of objects provides root objects for a root site, a collection of vendors, a collection of top level operating systems, and a collection of top level machine functions;

wherein the building blocks provide configuration instructions for a specific collection of machines, grouping the building blocks into different categories, objects pertaining to different available vendors, the objects pertaining to different operating systems, the objects pertaining to different machine functions, and the objects related to stages and phases involved in configuring machines;

generating configuration instructions used to build the programmable machine by organizing the generic objects in the library based on a framework established by a template;

wherein generating configuration instructions for the specific combination of programmable machines established by the template; providing packages which are collections of objects in a database that are assembled to be transferred from a site to another site;

providing ~~templates~~ the template to give a skeleton representation of a machine or a group of machines and the templates may be exported and transferred to other sites to generate configuration instructions at the other sites;

providing a user interface to manage data assignment for the specific collection of programmable machines, wherein the user interface accepts input and returns output.

30. (Original) The method according to claim 29, wherein the template is expressed in a markup language and has a form defined by a schema.

31. (Original) The method according to claim 29, further comprising transferring the template to another user, or receiving the template from the other user.

32. (Original) The method according to claim 29, further comprising transferring the template to a head-end site, or receiving the template from the head-end site.

33. (Original) The method according to claim 29, further comprising:
encapsulating information obtained from the library and the template in a
package; and
transferring the package to another site.

34. (Original) The method according to claim 29, further comprising
generating a plurality of sets of configuration instructions to build a respective plurality
of programmable machines.

35. (Original) The method according to claim 34, further comprising
generating a synchronization file that specifies a manner in which the configuration of
each machine in the plurality of programmable machines impacts other machines within
the plurality of programmable machines.

36. (Previously Presented) A computer readable storage medium executed on
a computing device having data structures and machine readable instructions for
implementing the method of claim 29.

37. (Currently Amended) A method for processing requests for configuration
instructions, comprising:
receiving a request from at least one configuration site for a configuration
package, the configuration package including the configuration instructions;
accessing a central database to retrieve the requested configuration package; and

transmitting the requested configuration package to the configuration site for its use in configuring at least one machine at the configuration site,

wherein the configuration package include:

a plurality of objects representing aspects of a configuration process;

a plurality of parameters associated with respective objects; and

at least one template for organizing the plurality of objects in accordance with a predetermined framework;

generating configuration instructions for a specific combination of programmable machines based on the predetermined framework;

providing the at least one template to provide a skeleton representation of a machine or a group of machines and templates may be exported and transferred to other sites to generate configuration instructions at the other sites;

filling out the template that governs an organization and a nature of the group of machines;

filling out the template that governs a makeup of individual machines in the group of machines; and

providing a user interface to manage data assignment for the specific collection of programmable machines, wherein the user interface accepts input and returns output.

38. (Currently Amended) ~~An apparatus~~ A system for generating configuration instructions used to build a programmable machine, comprising:

a memory;

a processor coupled to the memory;

a build management logic configured to automate building by working in conjunction with a database, the database granting rights to access, modify and transfer any information stored in the database to different respective user groups;

the database having:

a plurality of configuration items representing aspects of a configuration process for a specific collection of programmable machines; and

a plurality of features associated with respective configuration items, wherein at least one of the configuration items includes at least one of the following features:

parameter information pertaining to at least one parameter associated with the configuration item;

ownership information identifying an individual assigned ownership of the configuration item; and

validation information identifying at least one validation rule applicable to the configuration item;

the validation rule governs a kind of error checking when a user enters information regarding the configuration item, the validation rule includes entered data has a pre-specified format;

the build management logic configured to specify a set of configuration items from the database to implement the configuration of the programmable machine, and configured to generate the configuration instructions from the set of items;

the database includes packages which are collections of objects in the database assembled to be transferred from a site to another site;

the build management logic interacts with a template storage providing templates, wherein the templates provide a skeleton representation of a machine or a group of machines and the templates may be exported and transferred to other sites to generate configuration instructions at the other sites;

the template serves as a standardized framework for passing information from one machine to another;

the template includes a pointer to a phase list so a receiving site can reconstitute phases based on a local library at the site;

the build management logic is further configured to provide a user interface to manage data assignment for the specific collection of programmable machines, wherein the user interface accepts input and returns output.

39. (Currently Amended) A computer readable storage medium having computer-executable instructions that are executed on a computing device comprising:

a plurality of configuration items representing aspects of a configuration process for a specific collection of programmable machines; and

a plurality of features associated with respective configuration items, wherein at least one of the configuration items includes at least one of the following features:

parameter information pertaining to at least one parameter associated with the configuration item;

ownership information identifying an individual assigned ownership of the configuration item; and

validation information identifying at least one validation rule applicable to the configuration item;

the validation rule governs a kind of error checking when a user enters information regarding the configuration item, the validation rule includes entered data has a pre-specified format;

a build management logic configured to generate configurations to build the specific collection of programmable machines based on the parameters; and

the build management is further configured to manage data assignment for the specific collection of programmable machines.

40. (Currently Amended) A computer readable storage medium having computer executable instructions that is executed on a computing device , the computer executable instructions comprising:

providing building blocks in a library to form a hierarchical organization of objects that are representative of machines to be configured at a site;

the hierarchical organization of objects represents a relationship between different features of the machines, wherein a topmost object represents an aggregate of machines to be configured at the site;

the hierarchical organization of objects provides root objects for a root site, a collection of vendors, a collection of top level operating systems, and a collection of top level machine functions;

wherein the building blocks provide configuration instructions for a specific collection of machines, grouping the building blocks into different categories, objects

pertaining to different available vendors, the objects pertaining to different operating systems, the objects pertaining to different machine functions, and the objects related to stages and phases involved in configuring machines;

configuring a machine element pertaining to a machine;

configuring a stage element pertaining to a stage;

implementing a phase list element pertaining to a list of phases to implement the stage;

configuring a parameter element pertaining to a parameter ; and

assigning a value element pertaining to a value.

41. (Previously Presented) The computer readable storage medium according to claim 40, further including:

a group element referring to group in which the machine is a member.

42. (Previously Presented) The computer readable storage medium according to claim 40, wherein the schema is a markup language schema.